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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,863

08/25/2003

Prashant K. Singh

03-0712

3695

24319

7590

11/25/2005

LSI LOGIC CORPORATION  
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MS: D-106  
MILPITAS, CA 95035

EXAMINER

WILLIAMS, ALEXANDER O

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/647,863

Applicant(s)

SINGH, PRASHANT K.

Examiner

Alexander O. Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 4, 10 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 3, 5 to 9, 11 to 15 and 17 to 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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Serial Number: 10/647863 Attorney's Docket #: 03-0712

Filing Date: 8/25/2003;

Applicant: Singh

Examiner: Alexander Williams

Applicant's election of species of figure 5 (claims 1 to 3, 5 to 9, 11 to 15 and 17 to 20), filed 11/3/05, has been acknowledged.

This application contains claims 4, 10 and 16 drawn to an invention non-elected with traverse.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claim language in claims 3, 5, 9, 11, 12, 15, 17 and 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claims 3, 5, 9, 11, 12, 15, 17 and 18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 3, 5, 9, 11, 12, 15, 17 and 18, it is unclear and confusing to what shows the claimed structure.

Any of claims 3, 5, 9, 11, 12, 15, 17 and 18 not specifically addressed above are rejected as being dependent on one or more of the claims which have been specifically objected to above.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 3, 5 to 9, 11 to 15 and 17 to 20, insofar as some of them can be understood, are rejected under 35 U.S.C. § 103(a) as being unpatentable over Lin (U.S. Patent # 6,897,507 B2) in view of Gage' et al. (U.S. Patent # 6,385,019 B1).

For example, in claim 1 and similar claims 7, 14 and 19, Lin (figures 1 to 11) specifically figure show an integrated circuit, comprising: a substrate **10**; at least one area of dielectric material **12,14** disposed on said substrate; at least one area of metal material (**material within 12**) disposed on said substrate; a bondpad **13** associated with said at least one area of dielectric material and said at least one area of metal material; but fail to explicitly show a circuitry for generating a negative capacitance, said circuitry generating said negative capacitance of a value to compensate for a capacitance associated with said bondpad, said active circuitry being coupled to said bondpad and show wherein said circuitry comprises: at least two transistors; at least two resistors; each resistor of said at least two resistors being coupled to each of said at least two transistors; a capacitor coupled to a first transistor of said at least two transistors and a first resistor of said at least two resistors.

Gagne' et al. is cited for showing a compensation of differential floating capacitance between dual microelectronics. Specifically, Gagne' et al. (figures 1 to 7D) specifically figure 3a discloses a circuitry for generating a negative capacitance, said circuitry generating said negative capacitance of a value to compensate for a capacitance associated with said bondpad, said active circuitry being coupled to said bondpad and discloses wherein said circuitry comprises: at least two transistors **A1,A3**; at least two resistors **R1,Rm1**; each resistor of said at least two resistors being coupled to each of said at least two transistors; a capacitor **C1** coupled to a first transistor of said at least two transistors and a first resistor of said at least two resistors for the purpose of circuit for compensating the differential floating capacitance between dual microelectronics.

2. The integrated circuit as claimed in claim 1, the combination with Gagne' et al. show wherein a value of said negative capacitance is approximately equal in magnitude to said capacitance associated with said bondpad.

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6. The integrated circuit as claimed in claim 1, the combination with Gagne' et al. show wherein said circuitry is fabricated within the substrate.

13. The apparatus as claimed in claim 7, the combination with Lin et al. show wherein said circuitry is fabricated within the substrate.

Therefore, it would have been obvious to one of ordinary skill in the art to use Gagne' et al.'s negative capacitance generated by the circuitry to modify Lin et al.'s circuitry for the purpose of circuit for compensating the differential floating capacitance between dual microelectronics.

The listed references are cited as of interest to this application, but not applied at this time.

Field of Search	Date
U.S. Class and subclass: 257/300,471,759,773,383,471,435,774,775,755- 759,485,483,700,701,758,784,786,734,528,532 361/640,15,58,115	11/20/05
Other Documentation: foreign patents and literature in 257/300,471,759,773,383,471,435,774,775,755- 759,485,483,700,701,758,784,786,734,528,532 361/640,15,58,115	11/20/05
Electronic data base(s): U.S. Patents EAST	11/20/05

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander O. Williams whose telephone number is (571) 272 1924. The examiner can normally be reached on M-F 6:30AM-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272 1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander O Williams  
Primary Examiner  
Art Unit 2826

AOW  
11/20/05